

fastener 162, which is positioned on a top edge 128 of body case 120. These fasteners 160 and 162, when engaged, prevent the angular rotation of display housing 110 and maintain electronic device 100 in a CLOSED position until disengaged.

[0039] Dual speakers 170 and 172 are integrated into body case 120 and separated by display support member 140. Speakers 170 and 172 are substantially visible when the display housing 110 is placed in a CLOSED position.

[0040] For one embodiment of the invention, one or more channels 190 and 192 are formed on front panel section 122. Each channel 190 and/or 192 includes a recessed area 191 and 193 as further shown in FIG. 4. Each recessed area (e.g., recessed area 191) receives a spring-loaded retention hook 113 when display housing 110 is inverted and positioned against body case 120. Spring-loaded retention hooks 113 recoil when bottom portion 119 of display housing 110 is detached from display support member 140. Otherwise, spring-loaded retention hooks 113 are pushed into display housing 110 by display support member 140 when electronic device 100 is in a CLOSED or OPENED position as shown in FIGS. 1 and 3.

[0041] It is contemplated that different areas of display housing 110 and body case 120 may be adapted with different materials. For instance, a portion 123 of front panel section 122 surrounding secondary input device 185 may be adapted with stainless steel or another metal composition in lieu of hardened plastic to improve resiliency to damage after prolonged use.

[0042] Referring now to FIG. 5, a side elevation view of electronic device 100 of FIG. 1 is shown. For this embodiment of the invention, an interlocking mechanism 200 is configured with dual fastening capability. In particular, interlocking mechanism 200 comprises a first fastener 210 and a second fastener 220, which are coupled together by a bar 230. Made of a rigid material such as metal or hardened plastic, bar 230 comprises a first end 232 pivotally coupled to first fastener 210 and a second end 234 fixedly coupled to second fastener 220. As shown herein, bar 230 is utilized as a lever to control the engagement or disengagement of second fastener 220.

[0043] As shown in more detail in FIG. 6, a cross-sectional view of electronic device 100 illustrating a first embodiment of interlocking mechanism 200 is shown. Herein, lever 230 is positioned within a spacing 240 formed between front display panel 112 and back display panel 114 of display housing 110. Lever 230 enables second fastener 220 to become engaged with and disengaged from a slot 250 formed within display support member 140. An opening is positioned within the recessed area of back display panel 114 such as recessed portion 117.

[0044] A biasing mechanism 260 may be placed in spacing 240 in order to maintain lever 230 in a first state. For instance, biasing mechanism 260 may be a spring positioned to apply a lateral (horizontal) force against lever 230. This retains second fastener 220 to remain engaged in slot 250 of display support member 140 until additional forces are applied as described below.

[0045] Upon disengaging first fastener 210 and performing an event on first fastener 210, such as depressing first fastener 210 for example, lever 230 is laterally shifted and

placed in a second state. As a result, second fastener 220, which is fixedly coupled to lever 230, is also laterally shifted. Thus, as shown in FIG. 7, second fastener 220 is adapted to clear a flange 252 of slot 250 and become disengaged from slot 250 when display housing 110 is rotated counter-clockwise.

[0046] As shown in detail in FIG. 7, flange 252 features a curved shape that not only assists in preventing second fastener 220 from being disengaged from slot 250, but also assists in the engagement of second fastener 220 into slot 250. It is contemplated, however, that second fastener 220 may be engaged to display support member 140 through a variety of mechanisms, including but not limited to slot 250 without flange 252.

[0047] Alternatively, in lieu of a spring, biasing mechanism 260 may be accomplished by a set of retention bumps 270-272 placed on lever 230 and spacing 240 as shown in FIG. 8. For instance, according to this embodiment, when lever 230 is placed in the first state, a retention bump 270 may be positioned between retention bumps 271 and 272. This prevents second fastener 220 of the interlocking mechanism from being disengaged from slot 250. However, when lever 230 is placed in a second state where retention bump 270 is removed from the area between retention bumps 271 and 272 (e.g. bump 270 now to the left of bump 271), second fastener 220 may be disengaged from slot 250.

[0048] More specifically, when laterally shifted inward, lever 230 is forced slightly downward within spacing 240 to enable retention bump 270 to clear a retention bump 271. The second fastener is fixedly attached to lever 230. As a result, the second fastener laterally shifts within the slot to allow the second fastener to become disengaged when the display housing is rotated in a counter-clockwise direction. Of course, as yet another alternative, it is contemplated that lever 230 may be implemented with two or more retention bumps while spacing 240 is implemented with one or more retention bumps.

[0049] It is further contemplated that lever 230 may be positioned merely along a surface of the back display panel, perhaps within the recessed area instead of within spacing 240. This would warrant lever 230 to be configured generally flat in order to minimize the amount of space needed for lever 230.

[0050] Referring back to FIG. 5, when electronic device 100 is placed in a CLOSED position, first fastener 210, equivalent to fastener 160 of FIG. 1, is engaged with complementary fastener 162 of body case 120. This prevents angular rotation of display housing 110 and display support member 140. Also, second fastener 220 is engaged with slot 250 of display support member 140.

[0051] Referring now to FIG. 9, a side elevation view of electronic device 100 placed in a partially OPENED position is shown. Herein, first fastener 210 is disengaged from complementary fastener 162, which allows display housing 110 to be vertically pivoted by hinge assembly 130 as depicted by arrow 300. Second fastener 220 remains engaged with slot 250 so that both display housing 110 and display support member 140 are vertically pivoted simultaneously.

[0052] Referring to FIG. 10, a side elevation view of display housing 110 being rotated about an axis of rotation